

## Heavy kids may not respond as well to asthma meds

March 4 2012, By Kathleen Doheny, HealthDay Reporter

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As weight climbs, so does daily corticosteroid dosage, study says.

(HealthDay) -- Overweight children may not respond as well to common asthma medicines known as inhaled corticosteroids, new research finds.

As a result, they may need more of the long-term control medication, said researcher Dr. Pia Hauk, an assistant professor of [pediatrics](#) at National Jewish Health, in Denver.

"In our patient population, and we see a lot of severe asthmatics, the overweight and [obese children](#) have about twice as high an inhaled corticosteroid requirement than those of a healthy weight," Hauk said.

The study was small, including just 61 [children](#) with [asthma](#), aged 2 to 18, so the results should not be considered conclusive.

Thirty-four children were at healthy [weights](#), 13 were overweight and 14 obese. Most of the kids, 56, used [inhaled corticosteroids](#).

The researchers noted each child's weight and body-mass index (BMI) -- a measurement based on height and weight -- and daily [asthma medication](#) dosage.

They also cultured blood and airway cells, and evaluated the cells' response to asthma medicine, looking at a specific gene that affects the medication response.

Hauk found that as the weight and BMI rose, the [drug response](#) decreased. The gene was not expressed as much in overweight children, she said.

The findings were slated for presentation Sunday at the American Academy of Allergy, Asthma & Immunology annual meeting in Orlando, Fla.

About 9 million U.S. children under age 18 have been diagnosed with asthma at some point in their lives, according to the academy. Inhaled corticosteroids, which help reduce airway inflammation and mucus production, have been used for more than 50 years. They include beclomethasone (Qvar), triamcinolone (Azmacort) and mometasone (Asmanex).

About 17 percent of U.S. children and teens are obese, with a BMI over 30, according to the U.S. Centers for Disease Control and Prevention. That's triple the rate of a generation ago. Obese children are more likely to get asthma than normal-weight children.

Hauk speculates that chronic inflammation, which is seen in obesity, may interfere with the body's response to the medicine.

Dr. Sherry Farzan, an allergist and immunologist at North Shore-LIJ Health System, in Great Neck, N.Y., said that other research has shown that overweight adults with asthma had a lower response to their medicines.

"This study is looking more at a cellular level" than some other studies, she said, noting that it lends weight to previous findings.

Hauk said more study is needed before recommending asthma medication changes for [overweight children](#). Until more research is in, parents might encourage their child to lose excess weight, she said.

"We know that obesity and being overweight in children is not good in general," Hauk said. "By reducing weight you may decrease inflammation, and you may become more responsive to corticosteroid therapy again."

Data and conclusions presented at medical meetings should be considered preliminary until published in a peer-reviewed medical journal.

**More information:** To learn more about asthma medication, visit the [American Academy of Allergy Asthma & Immunology](#).

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